

Serial No. 09/767,821

ANGEL et al.

PF 0000051162

Examiner acknowledged in this context that the British reference failed to teach the addition of a free-radical initiator system of the kind and in the manner which is required in accordance with applicants' process for preparing certain graft copolymers.

The Examiner points out, however, that GB 922,457 teaches a process for grafting vinyl esters on polyalkylene glycols in the presence of a free-radical forming initiator and argues that it would have been obvious to a person of ordinary skill to modify the process of GB 922,457 as is necessary to arrive at applicants' process because Wu et al. disclose a process for the polymerization of vinylpyrrolidone in which PEG-300 is employed as a chain transfer agent. The Examiner argues in particular that a person of ordinary skill in the art would have been motivated to make the requisite modification because of the expectation that the molecular weight distribution of the graft copolymers addressed in GB 922,457 would be controlled and reduced.

It is firstly respectfully noted that applicants have repeatedly pointed out that the homopolymerization of vinylpyrrolidone which is addressed in the disclosure of Wu et al. is not similar, or analogous, to the graft copolymerization which is addressed in the teaching of GB 922,459.¹⁾ Applicants have also submitted Declarations of Dr. Angel which further explain the technological differences.²⁾ The respective arguments, which are herewith incorporated by reference, are fully applicable where the teaching of GB 922,457 is concerned since the procedures employed and the products which are addressed in the two British references are similar. Applicants have also already addressed why the teaching of GB 922,457 when taken in view of the disclosure of Wu et al. cannot reasonably establish that applicants' process is unpatentable under Section 103(a),³⁾ and the respective remarks are equally incorporated herein by reference.

Wu et al. specifically explain that a chain transfer agent functions by terminating the growing chain by providing a more labile hydrogen atom to the growing chain, and that the chain transfer agent hinders the growth of high molecular weight of molecules and reduces the breadth of the molecular weight distribution due to the "more

1) Cf. e.g. applicants' papers dated August 27, 2003, October 12, 2004, and February 14, 2005.

2) Cf. Dr. Angel's Declarations dated September 30, 2004, and February 07, 2005.

3) Cf. applicants' paper dated December 16, 2003.

Serial No. 09/767,821

ANGEL et al.

PF 0000051162

labile hydrogen atom" (emphasis added).⁴⁾ When viewing the procedure addressed in GB 922,457 it is immediately apparent that the polyalkylene glycols which serve as a grafting base for the graft copolymer of the British reference provide "labile hydrogens" and therefore can, in and of themselves, perform any chain transfer agent function which is needed or desired. The solid polyalkylene glycols which are present in the reaction mixture of GB 922,457 comprise "labile hydrogen atoms", and a low(er) molecular weight polyethylene glycol would not provide hydrogen atoms to the growing chains which are "more labile" than the hydrogen atoms already provided by the polyethylene glycol starting material of the process disclosed in GB 922,457. While, in the context of Wu et al.'s process, the liquid polyethylene glycols are capable of acting as a chain transfer agent by providing for a "more labile hydrogen atom" than found in the vinylpyrrolidone monomers, the same is not applicable where the reaction mixture of GB 922,457 is concerned. In combination with the solid polyalkylene glycols which are used as starting materials in the process of GB 922,457 the liquid polyethylene glycols do not provide a "more labile hydrogen atom". In the reaction mixture of the process disclosed in GB 922,457, the liquid, low-molecular weight polyethylene glycols are, therefore, not capable of acting as a chain transfer agent. It is immediately apparent to a person of ordinary skill in the art that adding the chain transfer agent taught by Wu et al. to the reaction mixture of the process disclosed in GB 922,457 would not serve any purpose whatsoever.

The explanations of Wu et al. with regard to the chain transfer agent are, hence, insufficient to motivate a person of ordinary skill in the art to effect the modifications of the process in GB 922,457 which are necessary to arrive at applicants' process. To the contrary, those explanations provide reasons why the process of Wu et al. and the process disclosed in GB 922,457 are not sufficiently closely related. For those reasons alone, a person of ordinary skill in the art is aware that that measures which work in the context of Wu et al.'s process cannot be expected to work in a similar manner in the context of the procedure addressed in GB 922,457. The explanations given by Wu et al. further support that a person of ordinary skill in the art had no motivation to use a liquid, low molecular weight polyethylene glycol in the process disclosed in GB 922,457.

4) Cf. col. 1, indicated line 34, to col. 2, indicated line 61, of US 5,338,814.

Serial No. 09/767,821

ANGEL et al.

PF 0000051162

Moreover, the explanations of Wu et al. support that a person of ordinary skill had no reasonable expectation that adding a liquid, low-molecular weight polyethylene glycol to the mixture reacted in accordance with the process disclosed in GB 922,457 would serve any useful purpose.

It is well settled that the teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, and cannot be based on applicant's disclosure.⁵⁾ "To support the conclusion that the claimed invention is directed to obvious subject matter, either the references must expressly or impliedly suggest the claimed invention or the examiner must present a convincing line of reasoning as to why the artisan would have found the claimed invention to have been obvious in light of the teachings of the references."⁶⁾ It is also well settled that the level of skill in the art cannot be relied upon to provide the suggestion to combine references,⁷⁾ and that the mere fact that the prior art can be modified in some manner so as to arrive at a claimed invention does not support a conclusion of obviousness where the prior art fails to suggest the desirability of the specific modification which is necessary.⁸⁾

Neither the teaching of GB 922,457 nor the disclosure of Wu et al. provide a teaching or suggestion to make the combination which characterizes applicants' process. Additionally, neither one of the references provides that the requisite modification could or would serve a useful purpose. Moreover, the reasons presented by the Examiner why a person of ordinary skill in the art would have done what applicants have done, fail to be technically sound. When the teachings of GB 922,457 and of Wu et al. are considered without the benefit of knowledge provided by applicants' invention, there is clearly no reasonable motivation to do what applicants have done, and no reasonable expectation of success. As such, the teachings of GB 922,457 and of Wu et al. are insufficient to render applicants' process prima facie obvious within the meaning of Section 103(a).

5) *In re Vaack*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991)

6) *Ex parte Clapp*, 227 USPQ 972, 973 (BPAI 1985).

7) *Al-Site Corp. v. VSI Int'l Inc.*, 174 F.3d 1308, 50 USPQ2d 1161, 1171 (Fed. Cir. 1999).

8) For example, *In re Gordon*, 733 F.2d 900, 221 USPQ 1125 (Fed. Cir. 1984); see also, eg., *Interconnect. Planning Corp. v. Feil*, 774 F.2d 1132, 227 USPQ 543 (Fed. Cir. 1985).

Serial No. 09/767,821

ANGEL et al.

PF 0000051162

In light of the foregoing and the papers already presented by applicants⁹⁾ it is therefore respectfully requested that the rejection of Claims 1 to 3, 10, and 18 to 21 under Section 103(a) be withdrawn. Favorable action is solicited.

Please charge any shortage in fees due in connection with the filing of this paper, including Extension of Time fees, to Deposit Account No. 14.1437. Please credit any excess fees to such deposit account.

Respectfully submitted,

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9) In particular applicants' papers dated August 27, 2003, December 16, 2003, October 12, 2004, and February 14, 2005, which are herewith incorporated by reference, as well as Dr. Angel's Declarations dated September 30, 2004, and February 07, 2005.